IN THE CLAIMS

Please cancel claims 1, 3, 4, 6-13, 15-17, 19, 20, 22, 24-25, 27, 29-30 and 32-34 and add original filed claims 1-34 as indicated below. Applicants note that in the previous Office Action (Paper No. 3), the Examiner had objected to claims 5-8, 13-16, 21, 26 and 31-34. To expedite the issuance of this application, Applicants cancelled claims 2, 5, 14, 18, 21, 23, 26, 28 and 31 and amended claims 1, 4, 69, 13, 15-17, 19-20, 22, 24-25, 27 and 30 to incorporate the limitations of the objected to claims as well as to provide consistency, e.g., claim 4 now depends from claim 1 instead of claim 2. However, the Examiner has withdrawn the indication of allowability of claims 5-8, 13-16, 21, 26 and 31-34 in the present action (Paper No. 5). Consequently, Applicants are reinstating the originally filed claims as they are not taught or suggested in the cited prior art for at least the reasons stated herein.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-34 (canceled)

Claim 35 (new) A network switch comprising:

    a CPU;

    a memory system having circuitry operable to attach to the CPU;

    a switch fabric system having circuitry operable to attach to the CPU;

    a port controller having circuitry operable to attach to the switch fabric system;

    a software application operable to execute on the CPU;

    a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU; and

    a switch device driver operable to execute on the CPU,

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric.

Claim 36 (new) The network switch of claim 35 further comprising a second software application operable to execute on the CPU,

wherein the second software application communicates with the FDDL system.

Claim 37 (new) The network switch of claim 35 wherein the FDDL system defines an FDDL API for communication with the software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 38 (new) The network switch of claim 36 wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 39 (new) The network switch of claim 36 wherein the FDDL system comprises:
    a base FDDL system;
    a software application tower FDDL system; and
    a second software application tower FDDL system
    wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claim 40 (new) The network switch of claim 35 further comprising:

an independent software application operable to execute on the CPU; and

an independent software application shim operable to execute on the CPU,

wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver.

Claim 41 (new) The network switch of claim 40 further comprising a second software application operable to execute on the CPU,

wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 42 (new) The network switch of claim 40 wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

Claim 43 (new) A network switch comprising:

a CPU;

a memory system having circuitry operable to attach to the CPU;

a switch fabric system having circuitry operable to attach to the CPU;

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a port controller having circuitry operable to attach to the switch fabric system;

a protocol means for providing a service to a network system;

a Forwarding Database Distribution Library (FDDL) means for communicating with the protocol means; and

a switch device driver means for communicating with the FDDL means and the port controller.

Claim 44 (new) The network switch of claim 43 further comprising a second protocol means for providing a second service to the network system,

wherein the FDDL means communicates with the second protocol means.

Claim 45 (new) The network switch of claim 43 wherein the FDDL means defines an FDDL API for communication with the software application, and the FDDL means defines a Switch Services API for communication with the switch device driver.

Claim 46 (new) The network switch of claim 44 wherein the FDDL means defines an FDDL API for communication with the protocol means and the second protocol means, and the FDDL system defines a Switch Services API for communication with the switch device driver means.

Claim 47 (new) The network switch of claim 44 wherein the FDDL means comprises:

a base FDDL means for communicating with the switch device driver means;

a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and

a second protocol tower FDDL means for communicating with a second protocol means and the base FDDL means.

Claim 48 (new) The network switch of claim 43 further comprising:

an independent protocol means for providing an independent service to the network system; and

an independent protocol shim for communicating with the independent protocol means and the switch device driver means.

Claim 49 (new) The network switch of claim 48 further comprising a second protocol means for providing a second service to the network system,

wherein the FDDL means communicates with the second protocol means.

Claim 50 (new) The network switch of claim 48 wherein the FDDL means comprises:

a base FDDL means for communicating with the switch device driver means;

a protocol tower FDDL means for communicating with the protocol means and the base FDDL means; and

a second protocol tower FDDL means for communicating with the second protocol means and the base FDDL means.

Claim 51 (new) A method of providing communications over a network system utilizing a first protocol and a second protocol, the method comprising the steps of:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL); and

communicating the information from the FDDL to a first protocol client.

Claim 52 (new) The method of claim 51 further comprising the steps of:

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL); and

communicating the additional information from the FDDL to a second protocol client.

Claim 53 (new) The method of claim 52 wherein

all communicating between the switch device driver to the FDDL is done through a switch services API; and

all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 54 (new) The method of claim 52 further comprising the steps of:

defining a switch services API for communication between the switch device driver; and

defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 55 (new) The method of claim 52 further comprising the steps:

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claim 56 (new)   A computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

receiving information at a port controller in a first protocol from a first node machine;

communicating the information from the port controller to a switch fabric;

communicating the information from the switch fabric to a switch device driver within an operating system;

communicating the information from the switch device driver to a Forwarding Database Distribution Library (FDDL); and

communicating the information from the FDDL to a first protocol client.

Claim 57 (new) The computer-readable medium of claim 56 having further stored thereon computer-executable instructions for performing the steps comprising:

receiving additional information at a port controller in a second protocol from a first node machine;

communicating the additional information from the port controller to a switch fabric;

communicating the additional information from the switch fabric to a switch device driver within an operating system;

communicating the additional information from the switch device driver to a Forwarding Database Distribution Library (FDDL); and

communicating the additional information from the FDDL to a second protocol client.

Claim 58 (new) The computer-readable medium of claim 57 wherein

all communicating between the switch device driver to the FDDL is done through a switch services API; and

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all communicating from the FDDL to the first protocol client and the second protocol client is done through an FDDL API.

Claim 59 (new) The computer-readable medium of claim 57 having further stored thereon computer-executable instructions for performing the steps comprising:

defining a switch services API for communication between the switch device driver; and

defining an FDDL API for communication between the first protocol client and the FDDL.

Claim 60 (new) The computer-readable medium of claim 57 having further stored thereon computer-executable instructions for performing the steps comprising:

receiving the information from the switch device driver at an FDDL base within the FDDL;

passing the information from the FDDL base to a first protocol FDDL tower within the FDDL; and

sending the information from the first protocol FDDL tower to the first protocol client.

Claim 61 (new) A network system comprising:

a network switch comprising a CPU, a memory system having circuitry operable to attach to the CPU, a switch fabric system having circuitry operable to attach to the CPU a port controller having circuitry operable to attach to the switch fabric system, a software application operable to execute on the CPU, a Forwarding Database Distribution Library (FDDL) system operable to execute on the CPU, and a switch device driver operable to execute on the CPU,

wherein the software application is operable to communicate with the FDDL system, the FDDL system is operable to communicate with the switch device driver, and the switch device driver is operable to communicate with the switch fabric;

a backbone; and

a workstation,

wherein the workstation is logically connected to the backbone, and

wherein the backbone is logically connected to the port controller of the network switch.

Claim 62 (new)   The network system of claim 61 further comprising a second software application operable to execute on the CPU,

wherein the second software application communicates with the FDDL system.

Claim 63 (new) The network system of claim 61 wherein the FDDL system defines an FDDL API for communication with the software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 64 (new) The network system of claim 62 wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 65 (new)   The network system of claim 62 wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.

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Claim 66 (new) The network system of claim 61 further comprising:

an independent software application operable to execute on the CPU; and

an independent software application shim operable to execute on the CPU,

wherein the independent software application communicates with the independent software application shim and the independent software application shim communicates with the switch device driver.

Claim 67 (new) The network system of claim 66 further comprising a second software application operable to execute on the CPU,

wherein the FDDL system defines an FDDL API for communication with the software application and the second software application, and the FDDL system defines a Switch Services API for communication with the switch device driver.

Claim 68 (new) The network system of claim 66 wherein the FDDL system comprises:

a base FDDL system;

a software application tower FDDL system; and

a second software application tower FDDL system

wherein the base FDDL system communicates with the switch device driver, the software application communicates with the software application tower FDDL system, the second software application communicates with the second software application tower FDDL system, and the base FDDL system communicates with the software application tower FDDL system and the second software application tower FDDL system.